

5-6**Practice**

Form K

Parallel and Perpendicular Lines

Write an equation in slope-intercept form of the line that passes through the given point and is parallel to the graph of the given equation.

1. $(-1, 3); y = 2x - 8$

2. $(2, 6); y = -3x + 5$

3. $(-1, -4); 9x + 3y = 8$

Write an equation of the line that passes through the given point and is perpendicular to the graph of the given equation.

4. $(6, -2); y = -3x + 4$

5. $(2, 7); y = \frac{1}{2}x - 11$

6. $(-5, -6); x + y = 6$

Determine whether the graphs of the given equations are *parallel*, *perpendicular*, or *neither*. Explain.

7. $y = -5x + 9$
 $5x + y = -21$

8. $x = \frac{1}{10}$
 $y = \frac{1}{10}$

9. $y = -4x + 14$
 $-x + 4y = 14$

10. $y = \frac{6}{7}x + 4$
 $y = -\frac{6}{7}x - 5$